In The Claims:

Please amend the claims as follows:

1. (Original) An accelerometer system comprising:

an inertial platform defining a reference plane, a spin axis, and a linear acceleration axis, wherein said spin axis is within said reference plane and said linear acceleration axis is perpendicular to said reference plane, said inertial platform maintaining a minimized rotation in response to a platform stabilizing controller signal;

a first accelerometer defining a first flex axis, said first accelerometer coupled to said inertial platform a first distance from said spin axis, said first accelerometer generating a first accelerometer signal in response to acceleration of said first accelerometer;

a second accelerometer defining a second flex axis, said second accelerometer coupled to said inertial platform a second distance from said spin axis, said second accelerometer generating a second accelerometer signal in response to acceleration of said second accelerometer; and

a controller receiving said first accelerometer signal and said second accelerometer signal, said controller generating a linear acceleration signal in response to a sum of said first accelerometer signal and said second accelerometer signal, said controller further generating said platform stabilizing controller signal in response to said first acceleration signal and said second acceleration signal.

2. (Original) The system of claim 1 wherein said first accelerometer generates a first linearized digital output signal in response to acceleration of said first accelerometer, and

said second accelerometer generates a second linearized digital output signal in response to acceleration of said second accelerometer.

3. (Original) The system of claim 1, wherein said controller comprises a first compensator compensating for a non-linearity within said linear acceleration signal and generating a first digital word proportional to a linear acceleration in said reference plane.

4. (Original) The system of claim 3, wherein said controller further generates an angular acceleration signal from a fraction of a difference of said first accelerometer signal and said second accelerometer signal.

5. (Original) The system of claim 4, wherein said controller further comprises a second compensator compensating for a non-linearity within said angular acceleration signal and generating second digital word proportional to a rotational acceleration about said spin axis.

6. (Original) The system of claim 5, wherein said controller controls a missile system in response to said first digital word and said second digital word.

7. (Original) The system of claim 1, wherein said first accelerometer is a first bridge accelerometer and said second accelerometer is a second bridge accelerometer.

8. (Original) The system as in claim 1, wherein said first flex axis and said second flex axis are perpendicular to said linear acceleration axis.

9. (Original) A method for operating a dual bridge accelerometer system defining a z spin axis comprising:

generating a first accelerometer signal from a first bridge accelerometer;

generating a second accelerometer signal from a second bridge accelerometer;

controlling said first bridge accelerometer and said second accelerometer such that said first bridge accelerometer and said second bridge accelerometer remain in an xz-plane;

generating a first output word from said first bridge accelerometer equivalent to a sum of a first linear acceleration and a first tangential acceleration acting on said first bridge accelerometer;

generating a second output word from said second bridge accelerometer equivalent to a sum of said first linear acceleration and said first tangential acceleration acting on said second bridge accelerometer;

averaging said first output word and said second output word; and

generating a linear acceleration signal.

10. (Original) The method of claim 9 further comprising compensating for non-linearities within said linear acceleration signal.

11. (Original) The method of claim 9 further comprising generating a digital word proportional to an angular acceleration around a z-axis.

12. (Original) The method of claim 11 further comprising activating an object control device in response to said digital word.

13. (Original) The method of claim 9 further comprising averaging said first output word and a negative value of said second output word and generating an angular acceleration signal.

14. (Currently Amended) The method of claim ~~9~~ 13 further comprising compensating for non-linearities within said angular acceleration signal.

15. (Currently Amended) The method of claim ~~9~~ 13 averaging said first output word and a negative value of said second output word further comprises generating a difference of amplitudes of said first output word and said second output word.

16. (Original) An accelerometer system comprising:

an inertial platform defining a reference plane, a spin axis, and a linear acceleration axis, wherein said spin axis is within said reference plane and said linear acceleration axis is perpendicular to said reference plane, said inertial platform maintaining a minimized rotation in response to a platform stabilizing controller signal;

a first accelerometer defining a first flex axis, said first accelerometer coupled to said inertial platform a first distance from said spin axis, said first accelerometer generating a first linearized digital output signal in response to acceleration of said first accelerometer;

a second accelerometer defining a second flex axis, said second accelerometer coupled to said inertial platform a second distance from said spin axis, said second accelerometer generating a second linearized digital output signal in response to acceleration of said second accelerometer; and

a controller comprising a first compensator and a second compensator, said controller receiving said first linearized digital output signal and said second linearized digital output signal,

said controller generating a linear acceleration signal in response to an average of said first linearized digital output signal and said second linearized digital output signal,

said first compensator compensating for a non-linearity within said linear acceleration signal and generating a first digital word proportional to a linear acceleration along said linear acceleration axis,

said controller further generating an angular acceleration signal from a difference of said first linearized digital output signal and said second linearized digital output signal,

said second compensator compensating for a non-linearity within said angular acceleration signal and generating a second digital word proportional to an angular acceleration about said spin axis,

said controller further generating said platform stabilizing controller signal in response to said first linearized digital output signal and said second linearized digital output signal, and

said controller controlling a missile system in response to said first digital word and said second digital word.

17. (Original) The system of claim 16, wherein said first accelerometer is a first bridge accelerometer and said second accelerometer is a second bridge accelerometer.

18. (Original) The system of claim 16, wherein said controller is a missile computer.

19. (Original) The system of claim 16, wherein said first compensator is a linear lookup table providing compensation information to said controller.

20. (Original) The system as in claim 16, wherein said first flex axis and said second flex axis are perpendicular to said linear acceleration axis.